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PATENT

Attorney Docket No.:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Examiner: A. Hirshfeld
VOLKER SCHMIDT	Art Unit: 2859
Application No.: 08/836,369	DECLARATION OF VOLKER SCHMIDT
Filed: October 20, 1997	
For: TEMPERATURE-MEASUREMENT INSTRUMENT WITH DIFFRACTIVE OPTICS	

Assistant Commissioner for Patents
Washington, D.C. 20231

DECLARATION OF VOLKER SCHMIDT

1. I, Volker Schmidt, am a citizen and resident of Germany. I was an employee of Sensytek GmbH, now known as Raytek GmbH, a subsidiary of Raytek Corporation. Among my responsibilities is the development of new products. My business address and telephone number are Raytek GmbH, Blankenburger Str. 135, D-13127, Berlin, Germany, 49-30/478008-38.

2. When Sensytek joined Raytek, Raytek was beginning to work on a new, high end infrared thermometer product, code named Project Shark. Project Shark was to be the responsibility of my engineering group in Berlin. As a result of this responsibility, I was involved in numerous discussions regarding the possible specifications and features of this new

product, including in particular, the sighting system that we would develop. By 1992, however, responsibility for the project was transferred to Raytek Santa Cruz. Although I continued to be informed regarding developments on this project, my group turned to different projects.

3. Among the sighting systems discussed in connection with Project Shark was a laser light system that would identify to the operator the actual perimeter of the energy zone of the radiometer on the surface target. By September, 1992, Raytek had actually incorporated into the marketing requirements document for this project a requirement for a laser light sighting system the projected either a ring of laser light or at least multiple dots of laser light to show the energy zone on the target. Attached hereto as Exhibit A is a true and correct copy of the relevant portions of that marketing requirement document that I have maintained in my files in Berlin since receiving it in about September, 1992.

4. During my work on Project Shark, I communicated about laser sighting systems with a variety of people in Raytek Santa Cruz engineering, including Will Menchine. I have reviewed the records of a prototype of a laser sighting system Mr. Menchine developed in 1992, using a diffraction grating to create either a ring of laser light or a pattern of dots of laser light to identify the energy zone. I believe that I discussed it with either Mr. Menchine or someone familiar with his work in approximately 1993.

5. In 1995, while attending a trade show in Munich, Germany, I learned of types of diffraction gratings that produced patterns of diffracted laser light dots. I realized that these diffraction gratings would be extremely effective in laser sighting systems to identify the energy zone.

6. By June of 1995, I had begun to develop drawings of a laser sighting device using the new diffraction gratings. At the same time, Raytek GmbH was in discussions with the Berlin

Optics Institute to work jointly on certain projects. As part of those negotiations, it was important to both parties to preserve independent ownership of certain technological advances. In particular, it was important to me that Raytek be the sole owner of the diffraction grating laser sighting system. Accordingly, I wanted to move very quickly to obtain patent protection on this technology in Raytek's name alone.

7. I met with Michael Tetzner, a German patent attorney who regularly does patent work for Raytek GmbH, and instructed him to prepare a patent application. Mr. Tetzner subsequently filed that application with the German Patent Office in approximately August, 1995. A corresponding application was eventually filed with the United States Patent and Trademark Office in approximately May, 1997.

8. At the time I met with Mr. Tetzner, I believed myself to be the sole inventor of the laser sighting device disclosed in the application. I had forgotten about the work I had done with Raytek Santa Cruz on laser sighting systems. Moreover, due to the shortness of time and my unfamiliarity with the legal significance of naming the complete list of inventors in a patent application, I neither thought extensively about my past work in this area nor consulted my files.

9. The laser sighting device described in the patent application was ultimately incorporated into the Raynger MX line of infrared thermometers developed in the Raytek Berlin facilities. During 1998, I learned that Omega Engineering, Inc. and its affiliates ("Omega") had filed lawsuits in the United States and Germany accusing the Raynger MX line of infringing several United States and German patents. In connection with these lawsuits, I began reviewing materials that document the development of the MX. In doing so, I found documents that I had received from Raytek Santa Cruz at the time of Project Shark — documents I had forgotten existed — including the marketing requirements document, Exhibit A. As I reviewed these

documents and continued to recall early details of the development of the MX radiometers, I realized that Mr. Menchine had made significant early contributions to the development of the laser sighting device used on the MX radiometers. I also realized that two German citizens, Hans-Jurgen Rostalski and Frank Wyrowski, with whom I had worked in developing the MX radiometer in Germany had also made significant contributions.

10. Accordingly, in approximately September 1998, I asked Mr. Tetzner to amend both the German and European patent applications to list Mr. Menchine, Mr. Rostalski, and Mr. Wyrowski as co-inventors.

11. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed true, and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and may jeopardize the validity of the application or any patent issuing thereon.

Apr. 1, 1999
Date

Volker Schmidt

FA990280.083/7+

Exhibit A

SHARK MARKETING REQUIREMENT - VERSION 1.5 9/24/92

1. MARKET

High-end portable IR sensor users in primary and secondary manufacturing industries such as chemical, petrochemical, plastics (including thin-films), glass, steel, metals, utilities and municipalities, etc. Applications include predictive/preventive maintenance, monitoring & control of product & process temperatures (QC/SPC) and possibly some utilization for R&D/laboratory projects.

The target market consists of sophisticated users requiring a high performance yet rugged, compact, lightweight, easy-to-operate portable IR thermometer which is available in several spectral/ temperature ranges, and which offers several advanced optical sighting and data logging options. Shark will fulfill these requirements and will succeed the Raynger 2 Plus (R2P) as Raytek's top-of-the-line portable product.

2. DISTRIBUTION

- Current "Raytek Label" representatives & distributors worldwide
- Current R2P "Private Label" resellers-including 3M, OMEGA, Cole-Parmer, Mitchell, Tsubaki and Optex
- Others to be determined

3. VOLUME

1000 units in first year

1250 units in second year

1500 units in third year

R2P Sales History:

1122 units in 1986

1139 units in 1990 (inc Tai Power order for 250)

870 units in 1991 (inc Tai Power order for 60)

700 units in 1992 (Planned)

6.7 Datalogging/Recording Options

6.7.1 DATALOGGING: 256 (required) LOG locations for storing the following data: LOG (location), TEMP, MAX, MIN, DIF, AVG, E(emissivity), Ta(value or "off"), HAL(value or "off") or LAL(value or "off")

6.7.1.1 Global Settings - settings for emissivity, HI alarm, LO alarm and Ta made in a "non-LOG" mode, will be the initial "global settings" for all LOG locations. Customized settings for individual LOG locations are made by addressing the LOG location, and entering the set-point values which differ from the global settings (Reqd)
Pre-programming capability - ability to store settings for all LOG locations on an external device (floppy disk ?) for quick programming (entry) of set-point values (Pref)

6.7.1.2 Date/Time Settings (what is effect on battery life to keep the clock/calendar running ?)

6.7.1.3 Stored data can be downloaded through DATATEMP 2 software to an IBM AT (or better) compatible PC (Reqd).
Price for the options listed above is $300 (adder to list price).

6.7.2 DATA RECORDING (BONUS) Real-time unattended temperature recording, into LOG locations, with adjustable sampling rate. Maximum recording time dependent on sampling rate selected and number of LOG locations.

Price for this option is an additional $100 (adder to list price)and must be ordered in conjunction with the $ 300 datalogging option

6.7.3 (Deleted)

6.8 Additional Options

6.8.1 LASER Sighting - LaserRing (Pref) or Multi-dot (Reqd)

6.8.2 N.I.S.T. Calibration Certification (Reqd)

6.8.3 Intrinsic Safety ratings (Reqd) e.g., Factory Mutual (US.) & CENELEC (Europe)

6.9 Accessories

6.9.1 Auto 110/220 VAC adapter - similar to the Toshiba "worldwide" laptop adapter (Pref), individual AC/DC adapters for worldwide compatibility (Reqd)

6.9.2 RS232 output cable, 5'(1.5m) w/connectors

6.9.3 Analog output cable, 5'(1.5m) w/connectors

6.9.4 Portable/battery operated printer (if digital output interval of instrument is adjustable-then current PM printer is acceptable)